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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,860

03/23/2005

Miles Maiden

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4172

24267 7590 08/11/2008
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EXAMINER

CECIL, TERRY K

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

08/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/528,860	Applicant(s) MAIDEN, MILES	
	Examiner Mr. Terry K. Cecil	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The 103 rejections of the prior office action have not changed except to comment that the changes to claims 1 and 15 concern only the intended uses of the apparatuses and fail to further structurally define.

Response to Arguments

1. Applicant's arguments filed 4-30-2008 have been fully considered but they are not persuasive.
 - Applicant argues limitations that are not part of the claims, e.g. a structural configuration wherein water flows along the path past the UV device only once (page 10, line 2) or precludes recirculation (page 11, line 14) or a circuitous route (page 14, lines 13-16).
 - Even though Carmignani teaches a photocatalytic reactor, he still teaches the claimed UV devices that provide UV radiation in germicidal ranges (less than 385 nm) that result in purifying the flowing fluid. It is noted that the transitional word in Applicant's claims is comprising which is open-end such that other elements can be present, e.g. catalysts, recycle lines, or even elements of an open cell, three dimensionally reticulated, fluid permeable, semiconductor unit etc.
 - The cylindrical configuration of the units in e.g. figures 1A and 1B are sufficient for teaching Applicant's "tubing".
 - Concerning Forsberg, it is pointed out that Forsberg has not been lied upon for teachings of intermittent operation.
 - Applicant argues (page 12), the Englehard does not teach turning off a UV device when water flow ceases. However, such is clearly indicated by Englehard: "power to the

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electronic ballast may be shut off by...a water flow sensing device” (col. 7, lines 55-59). As pointed out earlier, Applicant’s open-ended claims do not preclude the presence of a delay circuit. The delay count down can be considered as part of the turning-off process that occurs after water ceasing detected by the sensor. It is also pointed out that Englehard teaches delays of *less than* 3 minutes—a range that includes even a second of delay.

- Despite Applicant’s remarks to the contrary, neither Morrow nor Iana have been relied upon for UV device teachings.
- The ‘860-Carmignani-Engelhard-Iana and the ‘860-Iana-Carmignani-Englehard-Forsberg combinations both teach a UV purifying apparatus used in remote areas, e.g. camping. The examiner contends that Morrow used in a remote area, e.g. camping is sufficient motivation for looking to such a reference for teachings of a photovoltaic material for power generation.

Conclusion

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Terry K. Cecil whose telephone number is (571) 272-1138. The examiner can normally be reached on 8:00a-4:30p M-F..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mr. Terry K. Cecil/
Primary Examiner, Art Unit 1797

tkc